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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/664,112   | 09/17/2003  | Jonathan Lynch       | PD-02W215           | 4757             |
| 7590   | 07/27/2005  |                      | EXAMINER            |                  |
| Patent Docket Administration<br>RAYTHEON COMPANY<br>Bldg. EO/E4/N119<br>P.O. Box 902<br>El Segundo, CA 90245 |             |                      | CHOE, HENRY         |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2817                |                  |
| DATE MAILED: 07/27/2005  |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/664,112             | LYNCH, JONATHAN     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Henry K. Choe          | 2817                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 May 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 3-7, 9, 11, 12, 14-17 and 21-30 is/are allowed.
- 6) Claim(s) 1, 2, 8, 10, 13 and 18-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/6/05.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 8, 10, 13 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wallace et al [(2A, 3) It should be noted that the element 408 in Fig. 3 is same as the element 408 in Fig. 2A].

Regarding claims 1, 2, 13 and 20, Wallace et al (2A, 3) discloses an amplifier circuit comprising a plurality of amplification units (408s in Fig. 2A) which are fabricated in a grid like structure on a single monolithic semiconductor substrate (410), and a grid-bias network (-5V, +5V in Fig. 3) on the single monolithic semiconductor substrate (410) which separates the amplification units (408s) to provide a DC power (+5V, -5V) to the amplification units (408s) and wherein each amplification unit (408) includes bias-line bypass circuits (a connection between +5V and amplification unit and a connection between -5V and amplification unit) coupling each amplification unit (408) with the grid bias network (-5V, +5V in Fig. 3) arranged in a periodic structure.

Regarding claim 8, wherein each amplification unit (408) includes a power amplifier (508 in Fig. 3).

Regarding claims 10, 18 and 19, the amplification unit (408) further includes a receive antenna (502) on the substrate (the bottom plate of the received antenna element 502), a power

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amplifier (520) which receives a bias voltage (+5V), and the amplification unit (408) inherently includes a transmit antenna on the substrate since the amplification unit (408) cannot transmit a signal without the transmit antenna.

***Reasons for Allowance***

Claims 3-7, 9, 11, 12, 14-17 and 21-30 are allowed.

***Response to Arguments***

Applicant's arguments with respect to claims 1, 2, 8, 10, 13 and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

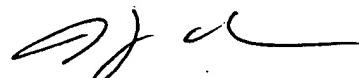
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Choe whose telephone number is (571) 272-1760.



**HENRY CHOE**  
**PRIMARY EXAMINER**